

A method of metallizing the surface of a solid polymer substrate and the product obtained

ABSTRACT

5

A method of metallizing a solid polymer substrate comprising the steps of

10 a) generating radicals on the substrate surface by subjecting it to a gas plasma,

b) forming a layer on the surface using a plasma enhanced polymerisation process employing one or more monomers comprising monomers selected among cyano acrylate, mono-
15 and diacrylates, such as acrylic acid, triethylen glycol diacrylate, glycidyl acrylate, isocyanates, such as 1,4-diisocyanobutane, toluenediisocyanate, epoxy compounds, such as glycidyl methacrylate, preferably 2,3-epoxypropyl methacrylate, allylic and vinylic compounds, such as vi-
20 nyl acetic acid, vinyl norbonene, vinyl pyrrolidone, vinyl trimethoxysilane, vinyl trimethylsilane allylene, allyl alcohol, allyloxymethylsilane, allylphenol, allylurea 1-allyltheourea(thiosineamine),

25 c) providing a short surface deposition using a PVD or CVD process to deposit metal atoms, such as copper, tin, silver palladium, platinum, or gold, and

30 d) optionally providing a metallization of the surface by using a conventional electroless bath, or

avoiding electroless metallization by using direct electrolytic metallization, when the metal layer formed in c) has a thickness allowing electrolytic metallization.

35